EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	168	c1Q adj domain	US-PGPUB; USPAT; DERWENT	OR	ON	2006/09/05 16:04
L2	165	c1Q adj domain and polypeptide	US-PGPUB; USPAT; DERWENT	OR	ON	2006/09/05 16:05
L3	160	c1Q adj domain and polypeptide and dna	US-PGPUB; USPAT; DERWENT	OR	ON	2006/09/05 16:05
L4	1	human adj c1Q adj domain and polypeptide and dna	US-PGPUB; USPAT; DERWENT	OR	ON	2006/09/05 16:06

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NEWS	6	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS	7	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
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NEWS	10	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS	11	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS	12	JUl 11	CHEMSAFE reloaded and enhanced
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NEWS	14	JUl 19	Coverage of Research Disclosure reinstated in DWPI
NEWS	15	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS	16	AUG 28	ADISCTI Reloaded and Enhanced
NEWS	17	AUG 30	CA(SM)/CAplus(SM) Austrian patent law changes

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=> s human (w) c1q
L1 903 HUMAN (W) C1Q

=> s l1 and polypeptide
L2 42 L1 AND POLYPEPTIDE

=> s l2 and domain
L3 8 L2 AND DOMAIN

=> s l3 and dna
L4 2 L3 AND DNA

=> d ibib abs l4 1-2

L4 ANSWER 1 OF 2 MEDLINE on STN
ACCESSION NUMBER: 85038855 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6208566
TITLE: Cloning and characterization of the complementary DNA for the B chain of normal human serum C1q.
AUTHOR: Reid K B; Bentley D R; Wood K J
SOURCE: Philosophical transactions of the Royal Society of London. Series B, Biological sciences, (1984 Sep 6) Vol. 306, No. 1129, pp. 345-54.
Journal code: 7503623. ISSN: 0962-8436.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198411
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 29 Jan 1999
Entered Medline: 28 Nov 1984
AB Normal human C1q is a serum glycoprotein of 460 kDa containing 18 polypeptide chains (6A, 6B, 6C) each 226 amino acids long and each containing an N-terminal collagen-like domain and a C-terminal globular domain. Two unusual forms of C1q have been described: a genetically defective form, which has a molecular mass of approximately 160 kDa and is found in the sera of homozygotes for the defect who show a marked susceptibility to immune complex related disease;

a fibroblast form, shown to be synthesized and secreted, in vitro, with a molecular mass of about 800 kDa and with chains approximately 16 kDa greater than those of normal C1q. A higher than normal molecular mass form of C1q has also been described in human colostrum and a form of C1q has been claimed to represent one of the types of Fc receptor on guinea-pig macrophages. To initiate studies, at the genomic level, on these various forms of C1q, and to investigate the possible relation between the C1q genes and the procollagen genes, the complementary DNA corresponding to the B chain of normal C1q has been cloned and characterized.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:824432 CAPLUS
DOCUMENT NUMBER: 143:222523
TITLE: Protein and cDNA sequences for human C1q domain-containing TNFα family protein C1Q/TNF7 that increases both fatty and lean body mass, and therapeutic uses
INVENTOR(S): Emtage, Peter C. r.; Liu, Shouchun; Thai, Kerri
PATENT ASSIGNEE(S): Nuvelo, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 94 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005180949	A1	20050818	US 2005-57027	20050211
WO 2006028492	A2	20060316	WO 2005-US4621	20050211

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-544806P P 20040213

AB The invention relates to pharmaceutical compns. comprising human C1Q/TNF7 (hC1Q/TNF7) polynucleotides and polypeptides.
The present invention is based on the discovery that hC1Q/TNF7 increases body mass, both fatty and lean body mass. The invention provides proteins and cDNA sequences for hC1Q/TNF7. HC1Q/TNF7 is a C1q domain -containing protein that also shares homol. to TNFα. HC1Q/TNF7 is identical to protein CTRP7 (complement-C1q tumor necrosis factor-related protein 7) (AAK17963). HC1Q/TNF7 homologous to adiponectin and murine C1Q/TNF2. The hC1Q/TNF7 polypeptide of SEQ ID NO: 4 is an approx. 289 amino acid protein with a predicted mol. mass of approx. 31.7 kDa unglycosylated, and a predicted signal peptide. Thus, compns. comprising hC1Q/TNF7, fragments or analogs thereof, may be used for the treatment of conditions where an increase in body mass is required, such as for the treatment of wasting disorders, such as cachexia, eating disorders, or diseases with a growth deficiency, such as genetic dwarfism or the growth retardation associated with pediatric Crohn's disease.

=> d l3 ibib abs 1-8

L3 ANSWER 1 OF 8 MEDLINE on STN

ACCESSION NUMBER: 85038855 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6208566
TITLE: Cloning and characterization of the complementary DNA for the B chain of normal human serum C1q.
AUTHOR: Reid K B; Bentley D R; Wood K J
SOURCE: Philosophical transactions of the Royal Society of London. Series B, Biological sciences, (1984 Sep 6) Vol. 306, No. 1129, pp. 345-54.
Journal code: 7503623. ISSN: 0962-8436.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198411
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AB Normal human C1q is a serum glycoprotein of 460 kDa containing 18 polypeptide chains (6A, 6B, 6C) each 226 amino acids long and each containing an N-terminal collagen-like domain and a C-terminal globular domain. Two unusual forms of C1q have been described: a genetically defective form, which has a molecular mass of approximately 160 kDa and is found in the sera of homozygotes for the defect who show a marked susceptibility to immune complex related disease; a fibroblast form, shown to be synthesized and secreted, in vitro, with a molecular mass of about 800 kDa and with chains approximately 16 kDa greater than those of normal C1q. A higher than normal molecular mass form of C1q has also been described in human colostrum and a form of C1q has been claimed to represent one of the types of Fc receptor on guinea-pig macrophages. To initiate studies, at the genomic level, on these various forms of C1q, and to investigate the possible relation between the C1q genes and the procollagen genes, the complementary DNA corresponding to the B chain of normal C1q has been cloned and characterized.

L3 ANSWER 2 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1980:251528 BIOSIS
DOCUMENT NUMBER: PREV198070044024; BA70:44024
TITLE: COMPLEMENT C-1 FROM THE BULL FROG RANA-CATESBEIANA FUNCTIONAL PROPERTIES OF ACTIVATED COMPLEMENT C-1 AND ISOLATION OF COMPLEMENT C-1Q.
AUTHOR(S): ALEXANDER R J [Reprint author]; STEINER L A
CORPORATE SOURCE: DEP BIOL, MASS INST TECHNOL, CAMBRIDGE, MASS 02139, USA
SOURCE: Journal of Immunology, (1980) Vol. 124, No. 3, pp. 1418-1425.
CODEN: JOIMA3. ISSN: 0022-1767.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB A euglobulin fraction of bullfrog (R. catesbeiana) serum can replace a similar fraction of guinea pig serum in the standard assay for C.hivin.1, the activated 1st component of complement. In this assay, sheep erythrocytes sensitized with rabbit antibodies and coated with guinea pig C4 (EAC4gp) are reacted with the C.hivin.1-containing test sample and then with guinea pig C2 and C3-9. This finding, together with earlier observations that some frog antibodies interact with guinea pig C and C.hivin.1, suggested that the C1 components in frogs and in mammals might be similar in structure. C1 is a complex of 3 subcomponents; one of these, C1q, binds to immunoglobulins and activates C1r, which activates C1s, triggering the classical C cascade. C1q, isolated from human serum, is an unusual protein, having globular and collagen-like regions. To determine whether frog C1q has a similar structure, this protein was isolated from frog serum by methods similar to those used in the isolation of human C1q. The activity of frog C1q was measured

by substituting it for human C1q in an assay utilizing human .**GRAPHIC**. and .**GRAPHIC**. EAC4gp, and guinea pig C2 and C3-9. By gel filtration, frog C1q seems to be similar in overall size to human C1q. Ad judged by polyacrylamide gel electrophoresis, the subunit structure of the 2 proteins is similar, with pairs of polypeptide chains cross-linked by disulfide bridges. Like the human protein, frog C1q contains the unusual amino acids, hydroxyproline and hydroxylysine, and is rich in glycine, suggesting that it has a collagen-like domain. Frog and human C1q apparently are very similar, although not identical, in structure. The characteristic features of this protein, which forms a link between the immune and C systems, may have been preserved in evolution, at least since the appearance of the class Amphibia.

L3 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:824432 CAPLUS
DOCUMENT NUMBER: 143:222523
TITLE: Protein and cDNA sequences for human C1q domain-containing TNFα family protein C1Q/TNF7 that increases both fatty and lean body mass, and therapeutic uses
INVENTOR(S): Emtage, Peter C. r.; Liu, Shouchun; Thai, Kerri
PATENT ASSIGNEE(S): Nuvelo, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 94 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005180949	A1	20050818	US 2005-57027	20050211
WO 2006028492	A2	20060316	WO 2005-US4621	20050211

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-544806P P 20040213

AB The invention relates to pharmaceutical compns. comprising human C1Q/TNF7 (hC1Q/TNF7) polynucleotides and polypeptides. The present invention is based on the discovery that hC1Q/TNF7 increases body mass, both fatty and lean body mass. The invention provides proteins and cDNA sequences for hC1Q/TNF7. HC1Q/TNF7 is a C1q domain -containing protein that also shares homol. to TNFα. HC1Q/TNF7 is identical to protein CTRP7 (complement-C1q tumor necrosis factor-related protein 7) (AAK17963). HC1Q/TNF7 homologous to adiponectin and murine C1Q/TNF2. The hC1Q/TNF7 polypeptide of SEQ ID NO: 4 is an approx. 289 amino acid protein with a predicted mol. mass of approx. 31.7 kDa unglycosylated, and a predicted signal peptide. Thus, compns. comprising hC1Q/TNF7, fragments or analogs thereof, may be used for the treatment of conditions where an increase in body mass is required, such as for the treatment of wasting disorders, such as cachexia, eating disorders, or diseases with a growth deficiency, such as genetic dwarfism or the growth retardation associated with pediatric Crohn's disease.

L3 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:811266 CAPLUS
DOCUMENT NUMBER: 130:262847
TITLE: Cloning and characterization of CRF, a novel C1q-related factor, expressed in areas of the brain involved in motor function
AUTHOR(S): Berube, Nathalie G.; Swanson, Xin H.; Bertram, Michael J.; Kittle, Joseph D.; Didenko, Vladimir; Baskin, David S.; Smith, James R.; Pereira-Smith, Olivia M.
CORPORATE SOURCE: Departments of Cell Biology and Medicine, Division of Molecular Virology, Roy M. and Phyllis Gough Huffington Center on Aging, Baylor College of Medicine, Houston, TX, 77030-3498, USA
SOURCE: Molecular Brain Research (1999), 63(2), 233-240
CODEN: MBREE4; ISSN: 0169-328X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have isolated and characterized a novel cDNA, C1q-Related Factor (CRF), that is predicted to encode a 258 amino acid polypeptide with a hydrophobic signal sequence, a collagenous region, and a globular domain at the carboxy terminus that shares homol. to the C1q signature domain. Human CRF transcript is expressed at highest levels in the brain, particularly in the brainstem. In situ hybridization to mouse brain sections demonstrated that CRF transcripts are most abundant in areas of the nervous system involved in motor function, such as the Purkinje cells of the cerebellum, the accessory olivary nucleus, the pons and the red nucleus. The mouse CRF homolog is highly similar to the human gene at both the nucleotide and protein level, suggesting an important conserved role for this protein.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1980:405753 CAPLUS
DOCUMENT NUMBER: 93:5753
TITLE: The first component of complement from the bullfrog, Rana catesbeiana: functional properties of C.hivin.1 and isolation of subcomponent C1q
AUTHOR(S): Alexander, Richard J.; Steiner, Lisa A.
CORPORATE SOURCE: Dep. Biol., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SOURCE: Journal of Immunology (1980), 124(3), 1418-25
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An euglobulin fraction of bullfrog serum could replace a similar fraction of guinea pig serum in the standard assay for complement C.hivin.1. Complement C1q was isolated from frog serum by methods similar to those used in the isolation of human C1q. The activity of frog C1q was measured by substituting it for human C1q in an assay utilizing human C.hivin.1.hivin.r and C.hivin.1.hivin.s, EAC4gP, and guinea pig C2 and C3-9. By gel filtration, frog C1q seems to be similar in overall size to human C1q. As judged by polyacrylamide gel electrophoresis, the subunit structure of the 2 proteins also appears to be similar, with pairs of polypeptide chains cross-linked by disulfide bridges. Like the human protein, frog C1q contained hydroxyproline and hydroxylysine, and is rich in glycine, suggesting that it also has a collagen-like domain. The combined evidence indicates that frog and human C1q are very similar, although not identical, in structure. Apparently, the characteristic features of this protein, which forms a link between the immune and C systems, have been preserved in evolution, at least since the appearance of the class Amphibia.

L3 ANSWER 6 OF 8 LIFESCI COPYRIGHT 2006 CSA on STN
ACCESSION NUMBER: 1999:110111 LIFESCI
TITLE: Assignment of the gene encoding mannan-binding lectin-associated serine protease 2 (MASP2) to human chromosome 1p36.3 arrow right p36.2 by in situ hybridization and somatic cell hybrid analysis
AUTHOR: Stover, C.M.; Schwaeble, W.J.; Lynch, N.J.; Thiel, S.; Speicher, M.R.
CORPORATE SOURCE: Department of Microbiology and Immunology, University of Leicester, University Road, Leicester LE1 9HN, UK; E-mail: ws5@le.ac.uk
SOURCE: Cytogenetics and Cell Genetics [Cytogenet. Cell Genet.], (19990000) vol. 84, no. 3-4, pp. 148-149.
ISSN: 0301-0171.
DOCUMENT TYPE: Journal
FILE SEGMENT: G
LANGUAGE: English
AB The complement system is an important constituent of the innate immune defense. It can be activated via an immune complex mediated "classical" activation pathway and by two antibody independent activation routes termed the alternative and the mannan-binding lectin activation pathways. The latter is composed of a multimolecular complex formed by hexameric mannan-binding lectin (MBL), a plasma collectin, two mannan-binding lectin-associated serine proteases, termed MASP1 and MASP2, and an MASP2 related plasma protein, termed MAp19. MASP1 has been referred to as CRARF. Crarf MASP and PR555 in various publications and databases. The architecture of MBL, MASP1, and MASP2 resembles that of the constituents of the C1 complex of the classical activation pathway. The latter consists of hexameric C1q and the serine proteases C1r and C1s. The four serine proteases, MASP1, MASP2, C1r, and C1s are multimodular proteins which have a similarity score of 39 to 50%. Among them, MASP2 and C1s are the C4 cleaving components. MAp19 is expected to be enzymatically inactive as it lacks the serine protease domain and consists only of the two N-terminal domain motifs of MASP2. It was shown to arise by an alternative splicing/polyadenylation mechanism together with MASP2 from a single structural gene. MAp19 may have a modulating role in the activation of complement via the lectin pathway. Phylogenetically, the lectin pathway of complement activation antedates the emergence of the classical or alternative activation routes as MASP1 homologous sequences were identified in ascidian. Chromosome locations in human have been determined for the three genes encoding the three different polypeptide chains for human C1q, located on chromosome 1p36.3 arrow right p34.1. The genes coding for the C1q-associated serine proteases C1r and C1s are closely linked on chromosome 12p13 and are thought to have arisen by gene duplication from a common ancestor. The gene coding for MBL has been mapped to human chromosome 10q11.2 arrow right q21. The gene for MASP1 has been localized to human chromosome 3q27 arrow right q28. This study assigns the gene encoding MASP2 and MAp19 to human chromosome 1p36.3 arrow right p36.2.

L3 ANSWER 7 OF 8 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1980:10135997 BIOTECHNO
TITLE: The first component of complement from the bullfrog, Rana catesbeiana: Functional properties of C1 and isolation of subcomponent C1q
AUTHOR: Alexander R.J.; Steiner L.A.
CORPORATE SOURCE: Dept. Biol., MIT, Cambridge, Mass. 02139, United States.
SOURCE: Journal of Immunology, (1980), 124/3 (1418-1425)
CODEN: JOIMA3
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
AN 1980:10135997 BIOTECHNO

AB We have found that a euglobulin fraction of bullfrog (Rana catesbeiana) serum can replace a similar fraction of guinea pig serum in the standard assay for C1, the activated first component of complement (C). In this assay, sheep erythrocytes sensitized with rabbit antibodies and coated with guinea pig C4 (EAC4(gp)), are reacted with the C1-containing test sample and then with guinea pig C2 and C3-9. This finding, together with earlier observations that some frog antibodies interact with guinea pig C and C1, suggested that the C1 components in frogs and in mammals might be similar in structure. C1 is a complex of three subcomponents; one of these, C1q, binds to immunoglobulins and activates C1r, which, in turn, activates C1s, thereby triggering the classical C cascade. C1q, isolated from human serum, is an unusual protein, having both globular and collagen-like regions. To determine whether frog C1q has a similar structure, we isolated this protein from frog serum by methods similar to those used in the isolation of human C1q. The activity of frog C1q was measured by substituting it for human C1q in an assay utilizing human C1r and C1s, EAC4(gp), and guinea pig C2 and C3-9. By gel filtration, frog C1q seems to be similar in overall size to human C1q. As judged by polyacrylamide gel electrophoresis, the subunit structure of the two proteins also appears to be similar, with pairs of polypeptide chains cross-linked by disulfide bridges. Like the human protein, frog C1q contains the unusual amino acids, hydroxyproline and hydroxylysine, and is rich in glycine, suggesting that it also has a collagen-like domain. The combined evidence indicates that frog and human C1q are very similar, although not identical, in structure. It seems that the characteristic features of this protein, which forms a link between the immune and C systems, have been preserved in evolution, at least since the appearance of the class Amphibia.

L3 ANSWER 8 OF 8 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 80105239 EMBASE
DOCUMENT NUMBER: 1980105239
TITLE: The first component of complement from the bullfrog, Rana catesbeiana: Functional properties of C1 and isolation of subcomponent C1q.
AUTHOR: Alexander R.J.; Steiner L.A.
CORPORATE SOURCE: Dept. Biol., MIT, Cambridge, Mass. 02139, United States
SOURCE: Journal of Immunology, (1980) Vol. 124, No. 3, pp. 1418-1425. .
CODEN: JOIMA3
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 026 Immunology, Serology and Transplantation
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991

AB We have found that a euglobulin fraction of bullfrog (Rana catesbeiana) serum can replace a similar fraction of guinea pig serum in the standard assay for C1, the activated first component of complement (C). In this assay, sheep erythrocytes sensitized with rabbit antibodies and coated with guinea pig C4 (EAC4(gp)), are reacted with the C1-containing test sample and then with guinea pig C2 and C3-9. This finding, together with earlier observations that some frog antibodies interact with guinea pig C and C1, suggested that the C1 components in frogs and in mammals might be similar in structure. C1 is a complex of three subcomponents; one of these, C1q, binds to immunoglobulins and activates C1r, which, in turn, activates C1s, thereby triggering the classical C cascade. C1q, isolated from human serum, is an unusual protein, having both globular and collagen-like regions. To determine whether frog C1q has a similar structure, we isolated this protein from frog serum by methods similar to those used in the isolation of human C1q. The activity of frog C1q was measured by substituting it for human

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